REMARKS

Claims 1, 49 and 51 were rejected as being unpatentable over Matsumura in view of Mukerjee. Applicant respectfully traverses the Examiners rejection in view of the following.

An aspect of the current invention is directed to creating an optimal transmission order within a block, which is customized to reflect characteristics of a particular dataset.

The Examiner cited Fig. 5 of Matsumura as teaching the step of "transforming the pixels of each block and creating an optimal transmission order." Applicant submits that the DCT transformation disclosed by Matsumura utilizes a fixed scan order and Matsumura does not teach, disclose or suggest the step of "creating an optimal transmission order of the coefficients...comprising a custom scan order," as set forth in Claim 1.

To more clearly distinguish the prior art, Applicant amended Claim 1 to recite that that the novel method creates "an optimal transmission order of the coefficients of said at least one block, said optimal transmission order comprising a custom scan order."

Another aspect of the invention is the step of optimizing the speed of processing compressed video data transmitting compressed data in two separate partitions.

The Examiner further cited Matsumura as teaching the step of "optimizing the speed of processing compressed video data by partitioning the bitstream and coding each partition independently."

Applicant submits that Matsumura does not teach or suggest the step of partitioning a compressed output data bitstream. The passage of Matsumura cited by the Examiner states that "The data source coder divides input video signal data into a

plurality of partitions, such as slices or blocks, and performs coding on each partition. This refers to the step of dividing an input video frame into blocks or macroblocks for processing and encoding and does not suggest the step of partitioning the output compressed bitstream and coding each partition independently.

The above notwithstanding, Applicant has amended Claim 1 to clearly set forth that is partitioned is "the compressed output data bitstream of a given frame," and that the bitstream is partitioned "into at least two data partitions." This step is not taught or suggested by Matsumura.

A third aspect of the invention is directed to selecting one of a plurality of interpolation methods to allow for more optimal fractional pixel prediction. This selection could be made at the clip level, the frame level, block level or even at the level of individual pixels.

The Examiner has cited Mukerjee as teaching the step of "predicting fractional pixel motion by selecting an interpolation method for each pixel depending upon one metric related to the block."

The passage of the Mukerjee reference cited by the Examiner states that "An encoder or decoder performs sub-pixel interpolation on a reference frame...computes pixel values at sub-pixel locations...then performs motion compensation using sub-pixel accurate motion vectors." This describes the step of performing sub-pixel interpolation, which is well known in the art. Applicant submits that neither the Mukerjee reference nor any other prior art teaching discloses the step of choosing between a plurality of interpolation methods for each block, based on a metric related to that block.

In order to clearly state this distinction, Applicant has amended Claim 1 to recite that "one interpolation method from a plurality of interpolation methods" is selected "for each given plurality of pixels depending upon at least one metric related to each given

block said interpolation methods comprising bilinear filtering and bicubic filtering." This is not taught in the prior art.

Another aspect of the invention is directed to the step of maintaining one or more additional reference frame in addition to the previous frame immediately preceding a current frame.

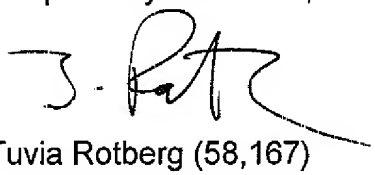
This step is clearly set forth in Claim 1, which sets forth the step of "using a frame *prior to* the frame immediately before the current frame..." (emphasis added).

This is fundamentally different from the teaching of Mukerjee as cited by the Examiner. Mukerjee teaches the step of using either a single previous frame or a later frame as a reference. Mukerjee does not teach or suggest the step of maintaining a frame prior to a frame immediately before a current frame as an additional reference.

Claims 49-53, which depend from Claim 1 are similarly limited, and are therefore believed to be allowable.

In light of the above, Applicant believes that the application is in condition for allowance.

Respectfully submitted,



Tuvia Rotberg (58,167)
LEVISOHN BERGER, LLP
61 Broadway, 32nd Floor
New York, New York 10006
Phone (212) 486-7272
Fax (212) 486-0323
Customer No. 04617